

three strands of DNA. According to claim 12, paragraph (a)(4) these three strands are conductive. Thus, three conductive segments of DNA were examined previously pursuant to examination of claim 12.

### **B. Active Grain**

Applicants respectfully invite the Examiner's attention to claim 12, paragraph (a)(3), which recites "active cores." Applicants assert that the term "active cores" is synonymous with "grain" or "active grain." *Compare* page 10, lines 3-5 (grain 205) and Figure 2 *with* page 12, lines 5-7 (active core 324) and Figure 3B. Therefore, the term "active grain" has already been examined in connection with examination of claim 12.

### **C. Bare DNA Segment**

Applicants again respectfully invite the Examiner's attention to claim 12. Paragraphs (a)(3) and (a)(5) describe a protection/deprotection process by which the active core is formed with a bare DNA segment. The process involves combining the DNA with enzymes that bind the active core to protect it from transformation to a current conductor. Thus, an active core consisting of a bare DNA segment has already been examined in this application pursuant to examination of claim 12.

### **II. Telephonic Interview**

On May 19, 2004, Examiner Marschel kindly returned a phone call from Applicant's Agent, Dr. Guy F. Birkenmeier and granted a spontaneous interview. During this conversation, Applicant's Agent presented an argument substantially the same as set forth above regarding the Office Communication. Examiner Marschel graciously acknowledged that new claims 19-29, drawn to circuits and methods of manufacturing circuits, presented in Applicant's

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